IDEA

Declaration

I, the undersigned Professor Gregor Cevc, Ph.D. herewith declare as follows:

1. I am the named inventor of the US patent application No. 09/887,493, and I am the Chief Executive Officer of IDEA AG, Germany, assignee of the above-referenced patent application.

2. I have read and understood the Office Action dated 2 February 2005, in which the Patent Examiner rejected the presently pending claims of this application as being not patentable over DE 4 447 287 C1 in view of US 5,322,685 and Cevc et al, (J. controlled Release, 7 April 1997, 45, 211-226).

3. The Examiner stated that the present invention would not involve an inventive step as DE '287 teaches using BHT and benzyl alcohol, and thus teaches using antioxidants and microbicides. It is further mentioned that DE '287 does not specifically teach using these ingredients in amounts to yield the claimed effects. However, the opinion is held that a person of ordinary skill in the art would routinely optimize the amount of these ingredients to yield the most stable product, which would reasonably lead to a product having the claimed effects.

4. I herewith respectfully state that the above assessment does not take into consideration the essential point and thus an essential ingredient of the present invention. This statement is explained and substantiated as follows.

5. Suspensions of ultradeformable vesicles, Transfersomes®, which are described in the present patent application as well as in DE '287 are very special and delicate, novel drug carrier system. Unlike previously known carriers, Transfersomes® must be prepared from a finely balanced mixture of amphipats in which even a minor change in composition is likely to hamper the resulting carrier's ability to cross a semi-permeable barrier, such as the skin: incorporation of too much of an antioxidant or the choice of an inappropriate antioxidant will unacceptably diminish such mixed aggregate ("Transfersome®") deformability or stability. An antioxidant may, for example, transform the highly adaptable Transfersome® into a relatively stiff particle which will then clog the pores in a semi-permeable barrier through which Transfersomes® normally should or could pass;alternatively, an antioxidant may soften Transfersome® membrane too much, resulting in unstable vesicles that will break before or at least during pore passage. All this is unacceptable in drug delivery.

For example, butylated hydroxyanisol (BHA) or butylated hydroxytoluene (BHT), two very popular anti-oxidants, both tend to stiffen lipid vesicles, to a substantial albeit different extent, or else precipitate from vesicles suspension, either alone or as co-